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NEW SPECIES OF POLYCHAETOUS ANNELIDS OF THE FAMILY NEREIDAE FROM CALIFORNIA

By Olga Hartman
University of California, Berkeley, Calif.

Annelids of the family Nereidae from many sources have been used in this study. Collections that were made by many persons over many years and that have accumulated in the department of zoology of the University of California at Berkeley were especially valuable. My own collecting was very extensive for Moss Beach, San Mateo County, and less complete for other parts of California, including points between Mendocino County and Los Angeles County. In addition, several smaller recent collections furnished a few interesting species. Such are the collection made at Dillon Beach, Marin County, by Prof. O. L. Williams, of the College of the Pacific at Stockton; one made at Pacific Grove, Monterey County, by Dr. R. M. Eakin; and one made off southwestern Oregon by Prof. C. R. Monk, of Willamette University. Holotypes are deposited in the United States National Museum; paratypes of all except *Nereis* (*Eunereis*) *longipes*, known only from the unique holotype, are in the California Academy of Sciences and the University of California collections.

The species of *Nereis* (sensu stricto) found in California are characterized by their posterior parapodia being provided with falcigerous homogomph notosetae (fig. 46, *d*). They can be arranged in series based on the relative proportions of the dorsal lobes of the posterior parapodia. Starting with *N. pelagica* Linnaeus, which seems most generalized, one such series would include those in which

the dorsal lobe assumes the shape of an acute triangle—*N. procera* Ehlers, *N. neonigripes*, new species, *N. natans*, new species, and *N. eakini*, new species. Another series, in which there is a tendency for the dorsal lobe to become quadrangular, includes *N. zonata* Malmgren, *N. pseudoneanthes*, new species, *N. mediator* Chamberlin, *N. eucapitis*, new species, and *N. vexillosa* Grube. Two species not fitting into these series are *N. limnicola* Johnson, in which there is a marked tendency toward reduction of all the lobes, and *N. latescens* Chamberlin, in which both the dorsal lobes and postsetal lips are produced laterally. *Nereis monterea* Chamberlin is a *Perinereis*.

Genus NEREIS Linnaeus

NEREIS (NEREIS) EUCAPITIS, new species

FIGURE 46

Measurements.—Length, 15–30 mm; width with parapodia, 4.5 mm in anterior third of body; number of segments, 65–75.

Description.—Prostomium broad (fig. 46, *a*), set off from palpi by faint emargination, producing a flat appearance of dorsal surface of "head"; provided with four black eyes set at lateral margins of widened posterior portion of prostomium.

Antennae (fig. 46, *a*) about as long as distance separating their basoectal margins; diverging distally.

Palpi elongated, cylindrical; basal portion of palpodes thickened ventrally so that the two almost touch medially; distal halves of almost uniform diameter (fig. 46, *a*) extending distally beyond tips of antennae; palpostyles slightly narrower than palpodes, almost spherical.

Peristomium at least 2½ times as long as segment 2 and somewhat narrower (fig. 46, *a*), constricted in middle region; produced ventrally to form an almost smooth, flat lower lip; peristomial cirri relatively short, the longest reaching to palpostyle; cirrophores low, smooth (fig. 46, *a*).

Paragnaths light to dark brown; maxillary ring with smaller teeth, basal ring with mostly larger teeth and a few smaller teeth; I with a single small flat cone; II with a small oblique crescent of about 10 rounded flat cones; III with a patch of three irregular rows of low cones; IV with four transverse rows of many small points; V without teeth; VI with four large high cones; VII–VIII with a continuous band of large tall cones, as in VI, and a patch of smaller cones on the maxillary side of VII.

Jaws strongly curved inward at middle; dark brown distally; with six blunt rounded teeth and a plain distal portion as long as two teeth.

Parapodia of anterior region low and rounded, their dorsal cirri exceeding in length the dorsal lobes, their ventral cirri not greatly longer than the ventral lobes (fig. 46, *b*); in median parapodia the setigerous lobes and cirri become relatively longer; from the twenty-first segment falcigerous homogomph setae appear singly in notopodia and continue so to posterior end; dorsal lobes in posterior third of body broader, carrying dorsal cirri more distally; posterior parapodia with a conspicuously widened area of the middle portion of the dorsal lobes (fig. 46, *c*), with dorsal cirri attached at end of dorsal lobes.

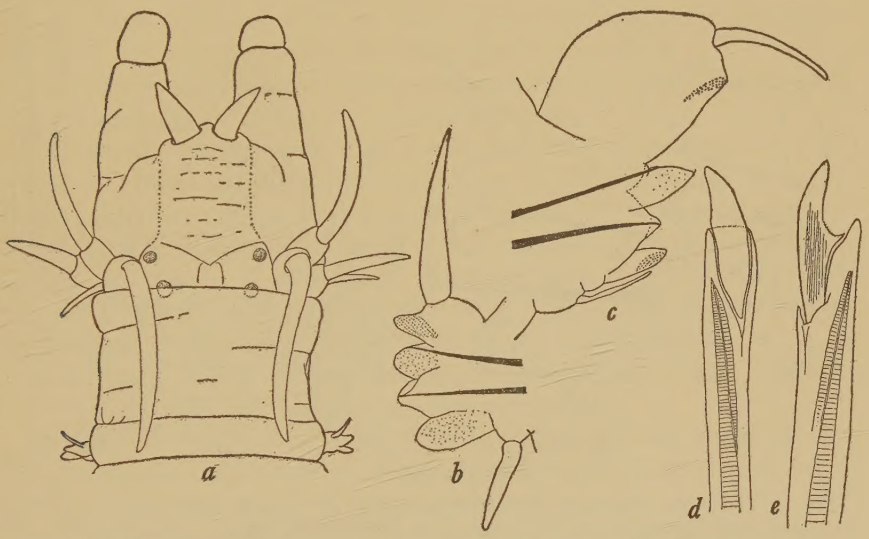

FIGURE 46.—*Nereis* (*Nereis*) *eucapitis*, new species: *a*, Anterior end in dorsal view, × 18; *b*, twenty-fifth parapodium in anterior view, × 40; *c*, posterior parapodium, × 26; *d*, falcigerous homogomph notoseta, × 333; *e*, falcigerous heterogomph neuroseta, × 333.

Setae all composite, of the usual four types; falcigerous notosetae and neurosetae as in figure 46, *d*, *e*.

Anal cirri two, as long as a posterior segment.

Holotype.—U.S.N.M. no. 20198.

Distribution.—Duxbury Reef, north of San Francisco, Calif., south to San Pedro, Calif. Common.

Remarks.—In general appearance of "head" and parapodia this species resembles *N. cockburnensis* Augener, 1913, from Southwest Australia. It differs from that species in its dentition, particularly in areas V, VII, and VIII. Among the *Nereis* (sensu stricto) from California, it lies between *N. vexillosa* and *N. mediator*. The proportions of the prostomium and peristomium and the outwardly curved dorsal edge of the dorsal lobe in posterior parapodia readily separate *N. eucapitis* from other species of *Nereis*.

NEREIS (NEREIS) PSEUDONEANTHES, new species

FIGURE 47

Description.—Prostomium with a broad flat dorsal surface, much as in *N. eucapitis* but with palpi conical and much less elongated, tapering gradually distally.

Parapodia (fig. 47, *b*, *c*) strikingly like those of *N. vexillosa* Grube; setae also much as in *vexillosa;* posterior notosetae as in figure 47, *c*.

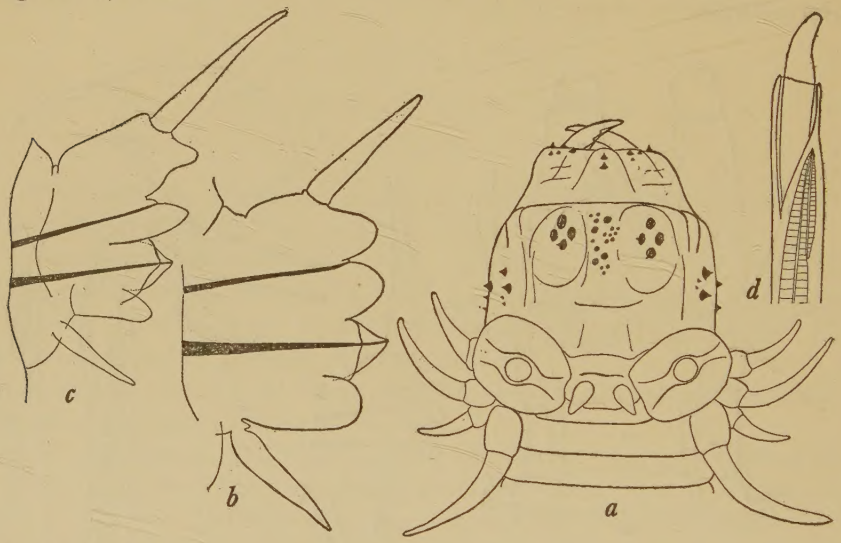

FIGURE 47.—*Nereis* (*Nereis*) *pseudoneanthes,* new species: *a,* Anterior end in dorsal view, with proboscis extruded and with prostomium pushed back and seen from anterior end, × 11; *b,* tenth parapodium in posterior view, × 39; *c,* posterior parapodium in posterior view, × 39; *d,* a falcigerous homogomph notoseta, × 333.

Paragnaths (fig. 47, *a*) : Area I with two small cones in tandem; II with an elongated patch of eight low pale-brown cones; III with three transverse rows of small teeth in an oval patch, teeth low, almost platelike; IV with about three rows of platelike teeth in a wide-open crescent (this area with the greatest number of teeth on the maxillary ring); V with a patch of 15 to 20 irregularly spaced, low, chitinous, platelike teeth of various sizes, almost filling space between V–VI (fig. 47, *a*); VI with four high, pointed, brown cones disposed in a diamond; VII–VIII with a single row of tiny, pointed, brown cones, a continuous band of four irregular rows of teeth as large as those of VI, and an oval patch of about 30 tiny teeth on the maxillary side of VII.

Jaws horny brown, with two or three denticulations and one to three weak crenulations.

Holotype.—U.S.N.M. no. 20199.

Localities.—San Pedro and La Jolla, Calif.

Remarks.—*Nereis pseudoneanthes* differs from *N. vexillosa* Grube and *N. mediator* Chamberlin in its dentition. Each of the nine specimens in the collection has area V of the proboscis beset with numerous chitinous platelets.

NEREIS (NEREIS) NEONIGRIPES, new species

FIGURE 48

Description.—Prostomium (fig. 48, *a*) with an anterior portion about as long as wide; basal portion, in region of eyes, almost twice as wide; its length subequal to its width; prostomial antennae longer than width of anterior end of prostomium, their bases separated by a distance equal to their diameter (fig. 48, *a*).

Palpi stout, thickened dorsoventrally; extending distally to beyond tips of antennae; palpostyles spherical (fig. 48, *a*).

Paragnaths dark brown; area I with two teeth in tandem; II with about 10 blunt cones, smaller than those of III; III with 10 to 12 blunt cones forming an oval transverse patch; IV with a crescent of many, mostly larger, teeth, with a few smaller cones at the periphery of the patch; V with none; VI with four (rarely three) high cones; VI–VIII with a continuous band of three irregular rows of many teeth and a row of larger cones on the maxillary side.

Jaws deep horny brown, thickened distally, with four shallow oblique teeth and one crenulation more proximad.

Parapodia (fig. 48, *b*, *c*) with lobes thickened, bluntly rounded, the first 15 giving impression of terminating in dark spheres, on account of dark pigmentation; all lobes equal or subequal as far as mid region of body, after which dorsal lobes progressively though gradually increasing in relative size, becoming about twice as wide as ventral lobes in posterior fifth of body.

Ventral cirri extending laterally to ends of ventral lobes throughout; originating slightly ectad of crotch where foot joins body (fig. 48, *c*).

Dorsal cirri (fig. 48, *b*, *c*) more than twice as long as dorsal lobes, attached to dorsal lobe on dorsal side, in line with axis formed by middle lobe and dorsal lobe. Falcigerous setae as in figures 48, *d*, *e*.

Abnormality.—A single specimen less than half as large, but with similar proportions and color markings, has a single enlarged prostomial antenna (fig. 48, *f*) in place of the usual paired antennae. Its parapodia (fig. 48, *g*) and setae compare well with those of a normal specimen of *N. neonigripes*.

Holotype.—U.S.N.M. no. 20201.

Distribution.—Kodiak, Alaska; Sonoma County, Calif.; Pacific Grove, Calif.

Remarks.—This species lies between *N. procera* Ehlers and *N. natans*, new species. It differs from both of these most conspicuously

in its short, blunt, pigmented parapodial lobes, as well as the anterior prolongation of the prostomium. It differs further in its dentition.

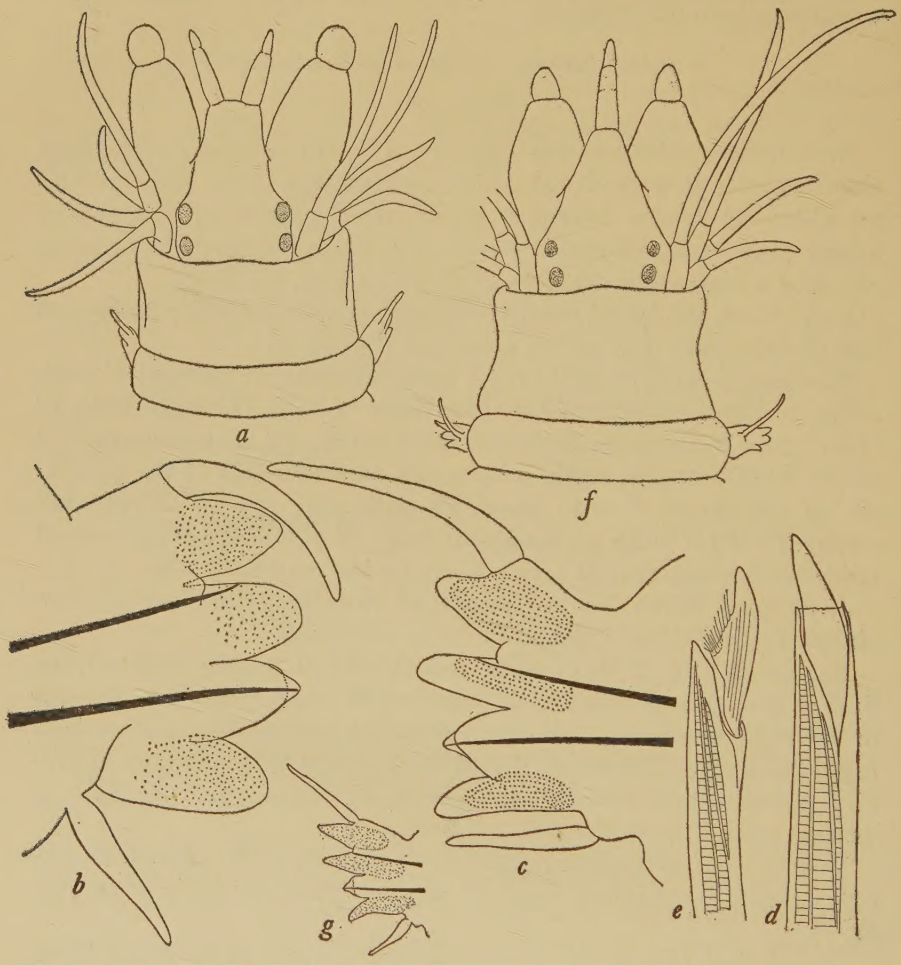

FIGURE 48.—*Nereis* (*Nereis*) *neonigripes*, new species: *a*, Anterior end in dorsal view, × 11; *b*, tenth parapodium in anterior view, × 40; *c*, posterior parapodium in posterior view, × 40; *d*, falcigerous homogomph notoseta, × 333; *e*, falcigerous heterogomph neuroseta, × 333; *f*, anterior end, in dorsal view of specimen with only one antenna, × 40; *g*, fortieth parapodium from specimen with abnormal prostomium, × 40.

NEREIS (NEREIS) EAKINI, new species

FIGURE 49

Nereis pelagica IZUKA, 1912; *non* Linnaeus.

Measurements.—Length, 25–100 mm; width, 2–5.5 mm without parapodia, 4–7 mm with parapodia; number of segments, 42–78.

Description.—Prostomium (fig. 49, *a*) narrowest anteriorly, widest in posterior third; provided with four black or brownish eyes disposed on widened posterior portion of prostomium.

Antennae two-thirds as long as prostomium, proximally separated by distance equal to diameter of their bases, diverging distally, and extending to a point between distal end of palpode and its style.

Palpi compressed-cylindrical, attached to prostomium so as to leave a free area almost equal to width of prostomium between ectal bases of antennae; palpode thickened in basal third, tapering distally and terminating in a spherical palpostyle (fig. 49, *a*).

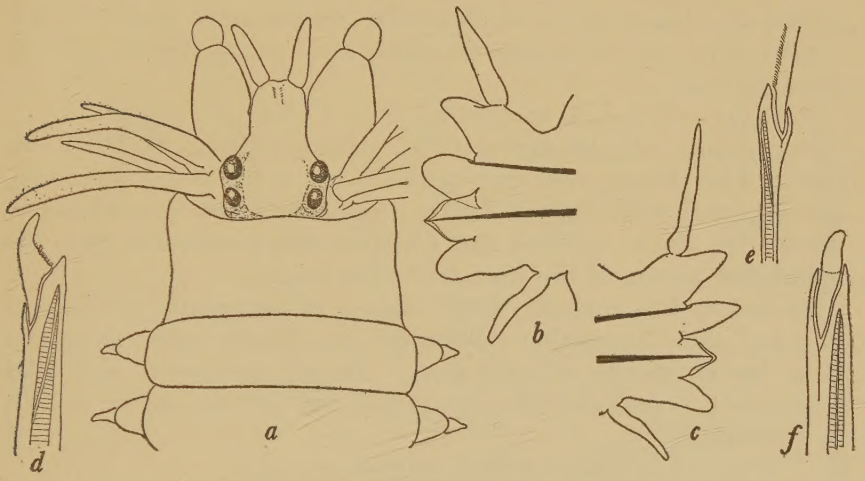

FIGURE 49.—*Nereis* (*Nereis*) *eakini*, new species: *a*, Anterior end in dorsal view, × 13; *b*, tenth parapodium in anterior view, × 40; *c*, posterior parapodium in posterior view, × 40; *d*, falcigerous heterogomph neuroseta, × 333; *e*, articulation of pointed heterogomph neuroseta, × 333; *f*, falcigerous homogomph notoseta, × 333.

Peristomium (fig. 49, *a*) dorsally seven-fifths as long as, and somewhat narrower than, or equally as wide as, segment 2; produced ventrally into a smooth lower lip, which extends slightly into second segment at the middle.

Paragnaths very numerous, dark or medium brown; area I with two to four small teeth in tandem; II with many round low cones, forming a longitudinal crescent between jaws; III with four to six teeth in a small transverse mass; IV with a large diagonal area of many round low teeth; V–VIII with a continuous band of many distinct, low, round cones of unequal sizes, completely covering basal half of oral ring, the largest cones on area VI, the smallest on the side of the oral opening.

Jaws deep, horny brown, with only three or four shallow teeth, which do not project from concave edge of jaw.

Parapodia anteriorly with dorsal and ventral lobes about equal (fig. 49, *b*) and subcylindrical, with dorsal and ventral cirri exceeding lobes in length; median parapodia with relatively larger and more conical dorsal lobes and longer, slenderer ventral lobe, with dorsal cirri relatively longer, distally extending beyond tips of setae; posterior parapodia similar to median parapodia except for further elongation of dorsal lobes and cirri (fig. 49, *c*).

Setae (fig. 49, *d–f*) all composite; pale amber, appendage deeper amber than shaft; falcigerous homogomph notosetae (fig. 49, *f*) first present in twentieth setiger, accompanied by homogomph pointed setae; at twenty-second setiger three or four homogomph notosetae replace all other dorsal setae, this order continuing to posterior end.

Anal cirri two, exceeding in length the longest dorsal cirri by about one-half.

Holotype.—U.S.N.M. no. 20203.

Distribution.—Pacific Grove, Calif. (type), collected by Dr. R. M. Eakin; Fort Bragg and vicinity, Calif.; a much larger specimen, agreeing well with the California specimens, from Port Orchard, Wash. Dr. Eakin reported that his specimens were taken from the ambulacral groove of the starfish *Patiria miniata.*

Remarks.—The unusually large number of paragnaths on the oral ring and their disposition readily set this species apart from any other known species of this genus. In its parapodial and setal structures it is nearest to *N. neonigripes*, new species, and *N. natans*, new species.

NEREIS (NEREIS) NATANS, new species

FIGURE 50

Measurements.—Length, 8 mm including anal cirri; width, 0.65 mm at peristomium, 0.8 mm without, 1.9 mm with parapodia at seventh segment; number of segments, 51, including 13 anterior prenatatory, 25 natatory, 11 postnatatory, and 1 anal.

Description.—Prostomium (fig. 50, *a*) about as wide as long, narrowest at anterior end where antennae are attached; provided with four very large dark-brown bulging eyes (fig. 50, *a*), the two of each side almost touching.

Antennae (fig. 50, *a*) slightly longer than anterior base of prostomium at point of attachment; separated at bases; extending distally beyond the palpi.

Palpi cylindrical, with medioventral surfaces compressed, their ectal margins almost parallel (fig. 50, *a*); palpodes extending anteriorly only slightly beyond prostomium; palpostyles spherical, curved ventrad.

Peristomium about 1½ times as long as segment 2 (fig. 50, *a*) and as wide; smooth dorsally, ventrally forming a lower lip, which is

convex at both anterior and posterior margin and smooth except for a few shallow grooves; peristomial cirri short, the longest 1½ times as long as peristomium, the shortest slightly over half as long as the longest (fig. 50, *a*).

Paragnaths dark brown, bluntly pointed cones to low round plaques; area I with three tiny teeth in a transverse row; II with a patch of 8 to 10 larger teeth; III with a large lozenge-shaped patch of many closely crowded teeth; IV with a small patch of a few irregularly scattered teeth; V with none; VI with a tiny heap; VII–VIII with a continuous band of several, irregular rows of scattered cones.

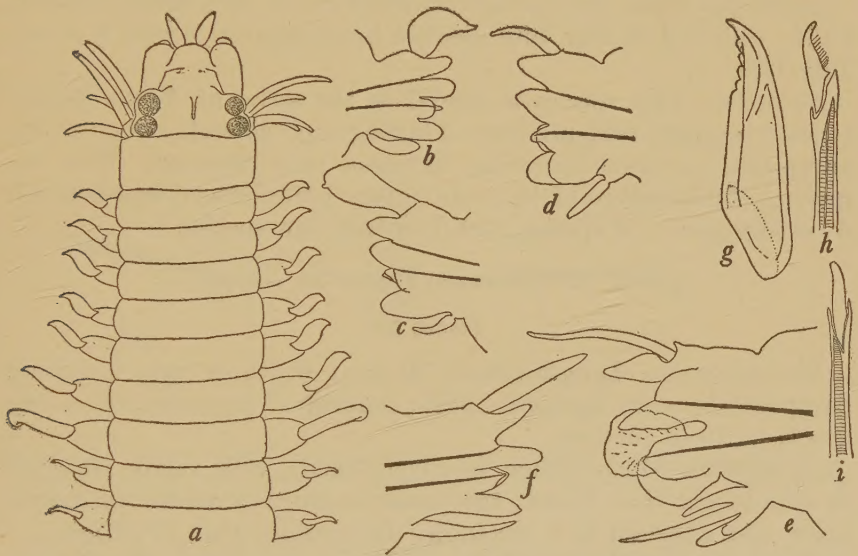

FIGURE 50.—*Nereis (Nereis) natans*, new species: *a*, "Head" and first 10 segments, parapodia diagrammatically represented to show increasing lengths of dorsal cirri and return to normal cirri at ninth segment, × 26; *b*, fourth parapodium, × 40; *c*, eighth parapodium, × 40; *d*, thirteenth parapodium, × 40; *e*, natatory parapodium from posterior three-fifths of body, × 40; *f*, a posterior postnatatory parapodium in posterior view, × 80; *g*, right jaw in dorsal view, × 40; *h*, falcigerous heterogomph neuroseta from prenatatory parapodium, × 333; *i*, falcigerous homogomph notoseta from postnatatory parapodium, × 333.

Jaws (fig. 50, *g*) amber brown, translucent, curved strongly inward in distal half; with four teeth on inner edge.

Parapodia of segments 2–14 with lobes as in figure 50, *b–d*, and setae of normal form; segments 15–39 with natatory parapodia (fig. 50, *e*), those of segments 40–50 (fig. 50, *f*) similar to those preceding segment 14; dorsal cirri of first seven setigerous segments gradually increasing in size (fig. 50, *a*); ventral cirri thickest on first setigerous segment, gradually decreasing in size and becoming normal at ninth segment; natatory parapodia about two-thirds

as long as width of body, provided with dorsal cirri, which extend to edges of special respiratory lobes. Natatory and postnatatory regions characterized by thick, glandular, paired areas above dorsal bases of parapodia.

Anus provided with two long thick cirri extending posteriorly, each about as long as last five setigerous segments, and two globular dorsal cirri, each slightly wider than half of body width at their point of attachment.

Setae all composite; falcigerous homogomph notosetae and neurosetae as in figure 50, *h*, *i*.

Holotype.—U.S.N.M. no. 20204.

Locality.—Three specimens from Moss Beach, San Mateo County, Calif., collected in tow with electric light between 8 and 9 p. m., July 1934.

Remarks.—This species is placed in the series of *Nereis* (sensu stricto) because of the presence of homogomph notosetae in posterior parapodia. Atokous specimens have not been observed. With respect to the structure of its postnatatory parapodia, it lies between *N. neonigripes*, new species, and *N. eakini*, new species.

NEREIS (CERATONEREIS) TUNICATAE, new species

FIGURE 51

Measurements.—Length, about 20 mm; width, 1 mm, including parapodia between segments 15–25; number of segments, 68 in one specimen, 70 in another.

Description.—Prostomium relatively small, with region anterior to eyes longer than broad; the posterior third provided with four black eyes disposed in a rectangle, the anterior pair the larger.

Antennae extending distally beyond palpophores, almost contingent at their bases, diverging slightly distally.

Palpi broader than width of prostomium, thick, touching ventrally; palpostyles hemispherical.

Peristomium 1½ times as wide as segment 2, constricted in anterior third; a smooth ring except for three shallow grooves laterally and a few short grooves at the oral opening.

Peristomial cirri short, the longest less than twice as long as peristomium, annulated in distal half; the shortest as long as peristomium; cirrophores smooth rings, weakly pigmented.

Paragnaths absent from oral ring; area I with none; II with three tiny cones; III with one minute cone; IV with three small cones in a transverse row.

Jaws pale amber, translucent, with five teeth.

Parapodia (fig. 51, *a*, *b*) anteriorly with conspicuous dorsal and ventral lobes, which are equal or subequal (fig. 51, *a*); median para-

podia with dorsal and ventral lobes becoming increasingly smaller, but with relatively larger setal lobes; posterior parapodia with dorsal rami increasing in relative size (fig. 51, *b*) and ventral rami decreasing; sixty-fifth parapodium as in figure 51, *b;* falcigerous homogomph setae (fig. 51, *c*) in posterior notopodia.

Anal cirri two, as long as last four segments, somewhat annulated in distal half.

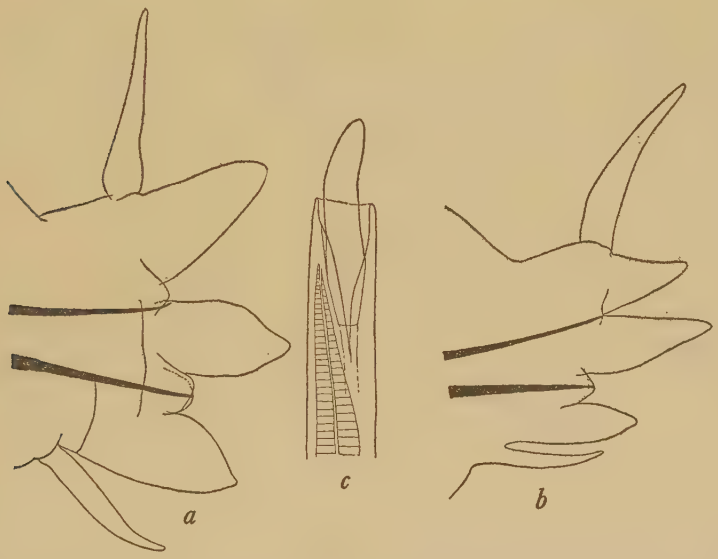

FIGURE 51.—*Nereis* (*Ceratonereis*) *tunicatae*, new species: *a*, Tenth parapodium in anterior view, × 80; *b*, posterior parapodium in anterior view, × 80; *c*, falcigerous homogomph notoseta from posterior parapodium, × 730.

Color.—A segmentally arranged pattern on dorsum of anterior half of body, fading after the tenth segment and disappearing by the thirtieth, consisting of a broad, transverse band of purplish brown, broken by one median and two pairs of lateral pale blotches; the parapodial lobes with similar pigment.

Holotype.—U.S.N.M. no. 20205.

Locality.—From a compound tunicate, embedded in the matrix; no tube observed; Tomales Bluff, near Dillon Beach, Calif.

NEREIS (NEANTHES) SALTONI, new species

FIGURE 52

Measurements.—Length, 30–50 mm; width at tenth segment, 2.5 mm without, 4 mm with, parapodia; number of segments, to 115.

Description.—Prostomium (fig. 52, *a*) much as in *Nereis* (*Neanthes*) *virens* Sars; with a median emargination extending from

anterior end to between anterior eyes; provided with four widely separated eyes with lenses.

Antennae (fig. 52, *a*) almost contingent at their inner bases; about half as long as prostomium; directed forward.

Palpi stout, subcylindrical, with a transverse groove at distal third (fig. 52, *a*); palpostyle spherical, about half as wide as distal end of palpode.

Peristomium (fig. 52, *a*) dorsally about as long as segment 2, convex at anterior medial margin; slightly wider than segment 2; produced ventrally to form a strongly grooved lower lip, its posterior margin convex; peristomial cirri elongated, the cirrophores almost half as long as the palpi, transversely wrinkled; styles smooth, the longest reaching to eighth setigerous segment, the shortest beyond the palpostyle.

FIGURE 52.—*Nereis* (*Neanthes*) *saltoni*, new species: *a*, Prostomium and peristomium in dorsal view, × 12; *b*, tenth parapodium in posterior view, × 27; *c*, fortieth parapodium in anterior view, × 27; *d*, falcigerous neuroseta from median parapodium, × 222.

Paragnaths numerous, black, mostly small well-separated pointed cones, the largest present on areas II, V, and VI; area I with one to four medium-sized blunt cones; area II with an oblique patch of about 15 teeth disposed in three rows; area III with a broad rectangular area of 20 to 25 smaller teeth; area IV with an irregular crescent of 15 to 20 cones intermediate in size between those of areas II and III; area V with one to five pointed cones; area VI with a rounded heap of 10 to 13 pointed cones; area VII to VIII with a continuous band of pointed cones in two or four irregular rows, most cones ventrally. Jaws thin, horny brown, with about eight teeth.

Parapodia (fig. 52, *b*, *c*) with elongated, fingerlike, equal or subequal lobes, except for the dorsal lobes, which are over twice as wide as the ventral lobes throughout length of body; posterior parapodia relatively longer and slenderer; dorsal lobe characteristically with its distal portion approximating in shape an equilateral triangle; dorsal cirri extending distally to beyond middle of dorsal lobe (fig. 52, *a*, *b*).

Setae all composite; falcigerous neurosetae (fig. 52, *c*) with a short appendage, the ratio of length to width being 10:1 or less.

Holotype.—U.S.N.M. no. 20206.

Locality.—Collected in quantity by Prof. S. F. Light, of the University of California, from Salton Sea, Calif. It is apparently a common species there. Professor Light found great numbers of dead individuals lying along the shore. Three weeks earlier, Dr. J. E. Hill had collected numerous 3-5-segmented polytrochs from Salton Sea, presumably of the same species. The suggestion of a reproductive swarming is obvious. The living worms were present in great numbers in the firm muddy sand, which forms the bottom at least near the shore at Date Palm Beach where the collections were made. Numerous young individuals were seen, and these like the older ones were enclosed in a tube of debris and slime.

Remarks.—This species is closely related to *Nereis* (*Neanthes*) *virens* Sars. It is separable from that species in the following characters: (1) It has a much greater number of paragnaths on both maxillary and oral rings, (2) the shape of the parapodial lobes differs strikingly, especially of the dorsal lobes, (3) parapodia lack parapodial granules as typical of *N. virens* Sars, and (4) the appendage of the falcigerous setae has a length to width ratio of 10:1 as against 15:1 or over, as typical for *N. virens* Sars.

NEREIS (EUNEREIS) LONGIPES, new species

FIGURE 53

Measurements.—Small. Length, 17 mm; width, 1 mm without, 2 mm with, parapodia at twelfth setigerous segment; number of segments, 79.

Description.—Prostomium (fig. 53, *a*) longer than wide, with narrowed, subquadrangular, anterior portion, which is shorter than the posterior portion; provided with four large red eyes with lenses.

Antennae (fig. 53, *a*) almost half as long as prostomium; well separated at their bases.

Palpi moderately large, tapering distally; palpostyles bluntly conical.

Peristomium as wide as segment 2; dorsally with paired triangular projections extending forward over prostomium (fig. 53, *a*); laterally with a groove that separates an anterior portion that turns ventrally to produce fleshy lobes at sides of the oral opening, and a posterior portion that forms a moderately thick lower lip; peristomial cirri short (fig. 53, *a*), the longest extending beyond distal ends of palpi, the shortest about one-third as long.

Paragnaths completely lacking from the maxillary ring, also from areas V and VI; VII and VIII with six brown cones set in a transverse row, two cones to each area.

Jaws pale brown, horny at distal edge, without teeth but with about eight shallow crenulations on the concave edge.

Parapodia (fig. 53, *a–d*) of normal length in anterior part of body, increasing in length in middle region of body and becoming as long as width of body in posterior third; dorsal cirri in anterior parapodia as long as, or slightly longer than, dorsal lobes (fig. 53, *a–c*); in anterior parapodia the dorsal lobes and cirri diverge distally; from about the twenty-first segment the posterior acicular lobe of the ventral ramus develops a large saclike lobe (fig. 53, *d*), which projects caudad; these lobes increase in size more posteriorly and come to fill entire space between consecutive parapodia in last 12 setigerous segments.

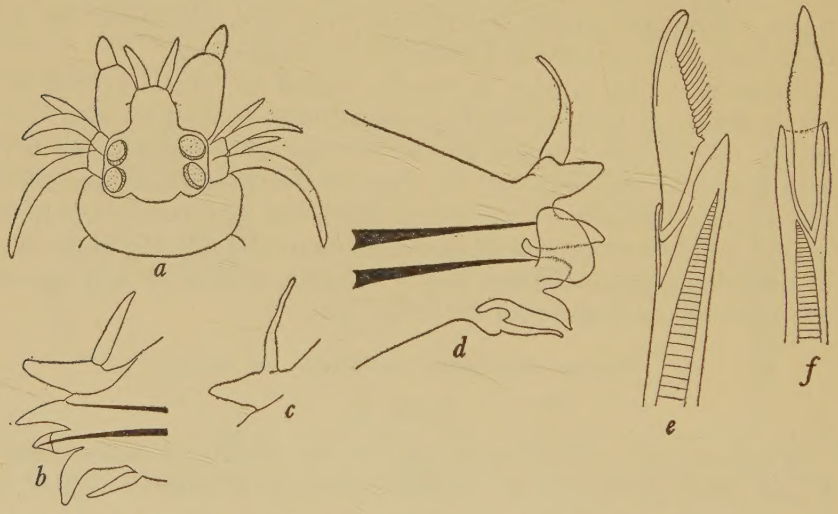

FIGURE 53.—*Nereis* (*Eunereis*) *longipes*, new species: *a*, Prostomium and peristomium in dorsal view, × 26; *b*, tenth parapodium in posterior view, × 40; *c*, dorsal cirrus and dorsal lobe from twentieth parapodium, × 40; *d*, epitokous parapodium from posterior half of body in posterior view, × 40; *e*, falcigerous heterogomph neuroseta from posterior parapodium, × 875; *f*, homogomph notoseta from posterior parapodium, × 875.

Setae with the usual heterogomph and homogomph pointed setae and falcigerous heterogomph neurosetae (fig. 53, *e*) and homogomph notosetae (fig. 53, *f*) in posterior parapodia.

Anal cirri two, long, as long as last four setigerous segments.

Holotype.—U.S.N.M. no. 20207.

Locality.—From crevice in a large rock in 10 feet of water at low tide in a cove at Moss Beach, San Mateo County, Calif.

Remarks.—*Nereis* (*Eunereis*) *longipes* approaches *N.* (*E.*) *hardyi* Monro from southern South America. It differs from that or any other known species in head proportions, the ventral parapodial lobes are relatively longer, and the neuropodial lobes of the posterior parapodia are unique.

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